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IN THE CLAIMS:

1. (Currently Amended) Stamp device for printing a pattern on a surface of a substrate having a two-sided rigid carrier layer providing on a first side thereof a patterned layer made of a first material and being combined on a second side opposite said first side with a soft layer made of a softer material than said first material, said patterned layer being stretched to selectively compensate for thermal, chemical, and/or mechanical induced deformation of said patterned layer to result in accurate prints; and said carrier layer describes an x-y-plane in which said carrier layer is rigid and said carrier layer is flexible in a direction perpendicular to said x-y-plane.
2. (Currently Amended) Stamp device for printing a pattern on a surface of a substrate comprising:
a two-sided rigid carrier layer providing on a first side thereof a patterned layer made of a first material and a contact means having at least one soft layer made of softer material than said first material for contacting a second side off of said carrier layer, said patterned layer being stretched to selectively compensate for thermal, chemical, and/or mechanical induced deformation of said patterned layer to result in accurate prints; and said carrier layer describes an x-y-plane in which said carrier layer is rigid and said carrier layer is flexible in a direction perpendicular to said x-y-plane.
3. (Cancelled).

4. (Original) Stamp device according to claim 1,
wherein said carrier layer is a metal foil or thin glass or quartz substrate.
5. (Original) Stamp device according to claim 1,
wherein said patterned layer provides structures having structure depths being smaller
than the thickness of said soft layer.
6. (Original) Stamp device according to claim 5,
wherein said patterned layer being of a thickness greater than said structure depths and
said soft layer being of a thickness greater than the thickness of said patterned layer.
7. (Currently Amended) Stamp device according to claim 1,
wherein said soft layer has a first compression modulus e_1 and said patterned layer has a
second compression modulus e_2 and where e_1 is the range of $e_1 < e_2$ and preferably $e_1 <$
 $e_2/5$.
8. (Currently Amended) Stamp device according to claim 1,
wherein said soft layer provides a backside ~~onto which force is directable by~~, and said
stamp device including a press means directing a force against said backside for
contacting said patterned layer ~~onto~~ with said surface of said substrate.

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(continued)

9. (Currently Amended) Stamp device according to claim 8, wherein said press means is a roller element comprising a cylindrical press having an at least partially a cylindrical surface.
10. (Currently Amended) Stamp device according to claim 2, wherein said contact means is includes a roller element comprising a cylindrical press element having an at a least partially a cylindrical surface.
11. (Previously Amended) Stamp device according to claim 1, wherein said patterned layer provides at least one force transducer zone arranged proximate the margin of said patterned layer for monitoring a force induced load acting between said stamp and said substrate.
12. (Currently Amended) Stamp device according to claim 11, wherein said force transducer zone provides a patterned structure on the stamp perimeter surrounding at least an area free of structures and proximate said area free of structures there are provided structures which bounds the area free of structures in at least one direction.
13. (Currently Amended) Stamp device according to claim 11, wherein said force transducer zone provides a patterned structure surrounding at least an area free of structures; and linear separating structures are provided which divide said area free of structures in into at least two surface sections.

14. (Currently Amended) Stamp device for printing a pattern on a surface of a substrate having a two-sided rigid carrier layer providing on a first side thereof a patterned layer made of a first material and being combined on a second side opposite said first side with a soft layer made of a softer material than said first material, wherein said patterned layer provides at least one force transducer zone extending along the ~~margin~~ margins thereof for monitoring a force induced load acting between said stamp and said substrate, said force transducer zone provides a patterned structure surrounding at least an area free of structures; and includes linear structures which divide said area free of structures into at least two sections, wherein at least two said linear structures are arranged to extend perpendicular to each other and dividing said area free of structures into at least into three sections.
15. (Previously amended) Stamp device for printing a pattern on a surface of a substrate having a two-sided rigid carrier layer providing on a first side thereof a patterned layer made of a first material and being combined on a second side opposite said first side with a soft layer made of a softer material than said first material, said patterned layer providing at least one force transducer zone for monitoring a force induced load acting between said stamp and said substrate, said force transducer zone is placed in an area near an edge of said patterned layer.
16. (Previously Amended) Stamp device according to claim 1, wherein said patterned layer provides patterned structures for printing said surface of said substrate, said patterned

structures being separated from each other by areas free of structures; and support structures in the form of posts or lines, are provided for preventing said areas free of structures from sagging and contacting said substrate by applying a load onto said stamp device.

17. (Currently Amended) Stamp device according to claim 16,

wherein said support structures ~~having~~ have maximally the same structure depth as said patterned structures and ~~being~~ are of the same material or of harder material like PMMA.

18. (Original) Stamp device according to claim 1,

wherein said patterned layer provides patterned structures for printing said surface of said substrate and said patterned structures being separated from each other by areas free of structures and in said areas free of structures the first material of said patterned layer is at least partially omitted forming a recess for preventing said areas free of structures from sagging and contacting said substrate by applying a load onto said stamp device.

19. (Original) Stamp device according to claim 2,

wherein said patterned layer provides patterned structures for contacting said surface of said substrate and said patterned structures being separated from each other by areas free of structures and in said areas of structures the first material of said patterned layer is at least partially omitted forming a recess, and
wherein at least one passage channel breaks through said carrier layer into said recess for creating a fluidic or gas network between said surface of said substrate and said stamp.

20. (Original) Stamp device according to claim 19;

wherein at least two passage channels are provided, one inflow channel and an other outflow channel for a fluid or gaseous media.

21. (Previously Amended) Stamp device according to claim 19, wherein at least two layers of said fluidic or gas network are stacked on top of each other to allow formation of multidimensional networks providing access to a multitude of substances at a multitude of locations without level intersections.

22. (Previously Amended) Stamp device according to claim 1, wherein said patterned layer a and the surface of said substrate comprises self-aligning means providing for an accurate relative positioning during the printing process.

23. (Previously Amended) Stamp device according to claim 22, wherein said self-aligning means comprises lock and key elements with lock elements of a constant shape and distance and said key elements being of variable shape smaller than said lock elements and increasingly larger for fitting without any mismatch into said lock elements.

24. (Previously Amended) Stamp device according to claim 23, wherein said lock and key elements have tapered flanks.

25. (Previously Amended) Stamp device according to claim 23, wherein said lock and key elements are arranged in a row along which said patterned layer and said substrate are brought into contact.
26. (Original) Stamp device according to claim 23,
wherein said patterned layer comprises said key elements and said surface of said substrate comprises said lock elements.
27. (Currently Amended) Stamp device according to claim 22, wherein ~~aid~~ said key elements are made from the same material as the hard support posts.
28. (Cancelled).
29. (Previously Amended) Stamp device according to claim 1, wherein said first material of said patterned layer has a thermal expansion coefficient which is greater than the thermal expansion coefficient of said rigid carrier layer.
30. (Original) Stamp device according to claim 19,
wherein said areas free of structure and connected to a closed gaseous network are pressurized through at least one passage channel to prevent those areas from sagging and contacting said substrate by applying a load onto said stamp device.

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